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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	OCT 04	Precision of EMBASE searching enhanced with new chemical name field
NEWS 3	OCT 06	Increase your retrieval consistency with new formats or for Taiwanese application numbers in CA/CAplus.
NEWS 4	OCT 21	CA/CAplus kind code changes for Chinese patents increase consistency, save time
NEWS 5	OCT 22	New version of STN Viewer preserves custom highlighting of terms when patent documents are saved in .rtf format
NEWS 6	OCT 28	INPADOCDB/INPAFAMDB: Enhancements to the US national patent classification.
NEWS 7	NOV 03	New format for Korean patent application numbers in CA/CAplus increases consistency, saves time.
NEWS 8	NOV 04	Selected STN databases scheduled for removal on December 31, 2010
NEWS 9	NOV 18	PROUSDDR and SYNTHLINE Scheduled for Removal December 31, 2010 by Request of Prous Science
NEWS 10	NOV 22	Higher System Limits Increase the Power of STN Substance-Based Searching
NEWS 11	NOV 24	Search an additional 46,850 records with MEDLINE backfile extension to 1946
NEWS 12	DEC 14	New PNK Field Allows More Precise Crossover among STN Patent Databases
NEWS 13	DEC 18	ReaxysFile available on STN
NEWS 14	DEC 21	CAS Learning Solutions -- a new online training experience
NEWS 15	DEC 22	Value-Added Indexing Improves Access to World Traditional Medicine Patents in CAplus
NEWS 16	JAN 24	The new and enhanced DPCI file on STN has been released
NEWS 17	JAN 26	Improved Timeliness of CAS Indexing Adds Value to USPATFULL and USPAT2 Chemistry Patents
NEWS 18	JAN 26	Updated MeSH vocabulary, new structured abstracts, and other enhancements improve searching in STN reload of MEDLINE
NEWS 19	JAN 28	CABA will be updated weekly
NEWS 20	FEB 23	PCTFULL file on STN completely reloaded
NEWS 21	FEB 23	STN AnaVist Test Projects Now Available for Qualified Customers
NEWS 22	FEB 25	LPCI will be replaced by LDPCI
NEWS 23	MAR 07	Pricing for SELECTing Patent, Application, and Priority Numbers in the USPAT and IFI Database Families is Now

Consistent with Similar Patent Databases on STN

NEWS EXPRESS 17 DECEMBER 2010 CURRENT WINDOWS VERSION IS V8.4.2 .1,
AND CURRENT DISCOVER FILE IS DATED 24 JANUARY 2011.

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* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 12:23:06 ON 29 MAR 2011

=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.23	0.23

FILE 'REGISTRY' ENTERED AT 12:23:50 ON 29 MAR 2011
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 28 MAR 2011 HIGHEST RN 1271522-06-5
DICTIONARY FILE UPDATES: 28 MAR 2011 HIGHEST RN 1271522-06-5

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TSCA INFORMATION NOW CURRENT THROUGH January 14, 2011.

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> e dioctyltin oxide/cn

E1	1	DIOCTYLTIN MERCAPTOPROPIONATE/CN
E2	1	DIOCTYLTIN OXALATE/CN

```
E3            1 --> DIOCTYLTIN OXIDE/CN
E4            1     DIOCTYLTIN PERCHLORATE/CN
E5            1     DIOCTYLTIN PHOSPHITE/CN
E6            1     DIOCTYLTIN PHTHALATE/CN
E7            1     DIOCTYLTIN S,O-3-MERCAPTOPROPIONATE/CN
E8            1     DIOCTYLTIN S,O-MERCAPTOACETATE/CN
E9            1     DIOCTYLTIN S,S'-BIS(ISOOCTYL MERCAPTOACETATE)/CN
E10           1     DIOCTYLTIN S,S-BIS(THIOACETIC ACID OCTYL ESTER)/CN
E11           1     DIOCTYLTIN STEARATE OLEATE/CN
E12           1     DIOCTYLTIN SULFIDE/CN

=> s e3
L1            1 "DIOCTYLTIN OXIDE"/CN

=> d l1

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2011 ACS on STN
RN   870-08-6  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Stannane, dioctyloxo-  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Dioctyltin oxide (6CI)
CN   Tin, dioctyloxo- (7CI)
OTHER NAMES:
CN   Di-n-octyltin oxide
CN   Dioctyloxostannane
CN   Irgastab T 161
CN   NSC 140743
CN   Stann OO
CN   U 800
CN   U 800 (heat stabilizer)
MF   C16 H34 O Sn
CI   COM
LC   STN Files:   ANABSTR, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS,
       CHEMINFORMRX, CHEMLIST, GMELIN*, IFICDB, IFIPAT, IFIUDB, PIRA,
       REAXYSFILE*, RTECS*, TOXCENTER, USPAT2, USPATFULL, USPATOLD
         (*File contains numerically searchable property data)
     Other Sources:   EINECS**, NDSL**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
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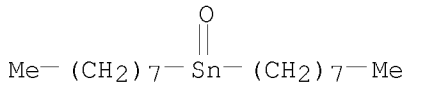

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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

             444 REFERENCES IN FILE CA (1907 TO DATE)
              32 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             444 REFERENCES IN FILE CAPLUS (1907 TO DATE)


=> e didecyltin oxide/cn
E1            1     DIDECYLTIN DINITRATE/CN
E2            1     DIDECYLTIN MALEATE/CN
```

```
E3            1 --> DIDECYLTIN OXIDE/CN
E4            1     DIDECYLTOLYLAMINE/CN
E5            1     DIDEETHYLFLURAZEPAM/CN
E6            1     DIDEETHYLSIMAZINE/CN
E7            1     DIDEGLUCOPARILLIN/CN
E8            1     DIDEGUANYLDIHYDRO-N-METHYLSTREPTOMYCIN/CN
E9            1     DIDEGUANYLDIHYDROSTREPTOMYCIN/CN
E10           1     DIDEGUANYLSTREPTOMYCYLAMINE/CN
E11           1     DIDEHYDRO-A-MATRINIDINE/CN
E12           1     DIDEHYDRO-E-VINIFERIN/CN

=> s e3
L2            1 "DIDECYLTIN OXIDE"/CN

=> d l2

L2   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2011 ACS on STN
RN   94678-16-7  REGISTRY
ED   Entered STN:  09 Feb 1985
CN   Stannane, didecyl-, 1-oxide  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Stannane, didecyloxo- (9CI)
CN   Tin, didecyloxo- (7CI)
OTHER NAMES:
CN   Didecyltin oxide
MF   C20 H42 O Sn
LC   STN Files:   CA, CAPLUS
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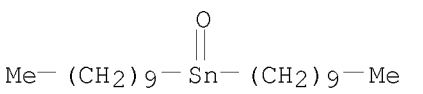

```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

               2 REFERENCES IN FILE CA (1907 TO DATE)
               2 REFERENCES IN FILE CAPLUS (1907 TO DATE)


=> e nonyltin oxide/cn
E1            1     NONYLTHIOURONIUM CHLORIDE/CN
E2            1     NONYLTHIURONIUM CHLORIDE/CN
E3            0 --> NONYLTIN OXIDE/CN
E4            1     NONYLTRICHLOROSILANE/CN
E5            1     NONYLTRIETHOXYSILANE/CN
E6            1     NONYLTRIETHYLAMMONIUM/CN
E7            1     NONYLTRIETHYLAMMONIUM BROMIDE/CN
E8            1     NONYLTRIETHYLAMMONIUM ION/CN
E9            1     NONYLTRIMETHYLAMMONIUM/CN
E10           1     NONYLTRIMETHYLAMMONIUM BROMIDE/CN
E11           1     NONYLTRIMETHYLAMMONIUM CHLORIDE/CN
E12           1     NONYLTRIMETHYLAMMONIUM HYDROGEN PHTHALATE/CN

=> e nonyl tin oxide/cn
E1            1     NONYL THIOGLYCOLATE/CN
```

```
E2            1     NONYL TIGLATE/CN
E3            0 --> NONYL TIN OXIDE/CN
E4            1     NONYL TITANATE (C9H19O)4TI/CN
E5            1     NONYL TITANATE(IV) ((C9H19O)2TIO)/CN
E6            1     NONYL TITANATE(IV) ((C9H19O)4TI)/CN
E7            1     NONYL TOLYL PHOSPHATE, (C9H19O)(C7H7O)2PO/CN
E8            1     NONYL TRIBROMOACETATE/CN
E9            1     NONYL TRICHLOROACETATE/CN
E10           1     NONYL TRICHLOROACRYLATE/CN
E11           1     NONYL TRIFLUOROACETATE/CN
E12           1     NONYL TRIMELLITATE/CN

=> file caplus, agricola
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                  21.82      22.05

FILE 'CAPLUS' ENTERED AT 12:31:02 ON 29 MAR 2011
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COPYRIGHT (C) 2011 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'AGRICOLA' ENTERED AT 12:31:02 ON 29 MAR 2011

=> s transesterificaiton (P) esterification (P) (fat# or oil#)
L3            0 TRANSESTERIFICAITON (P) ESTERIFICATION (P) (FAT# OR OIL#)

=> s biodiesel and (l1 or l2)
L4            1 BIODIESEL AND (L1 OR L2)

=> d l4 ibib abs

L4   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2011 ACS on STN
ACCESSION NUMBER:         2005:612439  CAPLUS
DOCUMENT NUMBER:          143:117808
TITLE:                    Improved process for preparing fatty acid alkyl esters
                          using as biodiesel
INVENTOR(S):              Gupta, Ashok Kumar; Bhatnagar, Ajay Kumar; Kaul,
                          Savita
PATENT ASSIGNEE(S):       Council of Scientific and Industrial Research, India
SOURCE:                   PCT Int. Appl., 16 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     WO 2005063954         A1    20050714    WO 2003-IN416           20031230
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
             OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
             TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
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BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2552371	A1	20050714	CA 2003-2552371		20031230
AU 2003290414	A1	20050721	AU 2003-290414		20031230
AU 2003290414	B2	20101104			
EP 1711588	A1	20061018	EP 2003-782777		20031230
R: AT, DE, FR, GB, IT					
BR 2003018651	A	20061128	BR 2003-18651		20031230
CN 1894390	A	20070110	CN 2003-80111007		20031230
IN 2004DN00397	A	20060310	IN 2004-DN397		20040220
IN 239072	A1	20100312			
US 20070282118	A1	20071206	US 2007-585041		20070612
PRIORITY APPLN. INFO.:			WO 2003-IN416	W	20031230

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Fatty acid alkyl esters suitable for use as biodiesel are produced by a single step esterification of free fatty acids and transesterification of triglycerides from vegetable oils or animal fats or combinations thereof with a lower alc. (e.g. methanol) in presence of alkyl tin oxide as catalyst. Thus, such an improved process comprises the steps of, a. reacting fatty acid glycerides with an alc. having 1-4 carbon atoms in the molar ratio of 3:1 to 30:1 of fatty acids and triglycerides resp., at a temperature ranging between 70-300°, pressure in the range of 1-30 bar, in presence of a organometalic catalytic compound of Tin with concentration of catalyst is in the range of 0.01 to 3 weight percent of the fatty acid glycerides; b. obtaining ester with glycerol; c. separating the glycerin from the fatty acid alkyl ester as immiscible phase by decantation; d. purifying the fatty acid alkyl esters by washing with water, and e. washed ester is treated with an basic adsorbent to obtain biodiesel.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 12:23:06 ON 29 MAR 2011)

FILE 'REGISTRY' ENTERED AT 12:23:50 ON 29 MAR 2011
E DIOCTYLTIN OXIDE/CN
L1 1 S E3
E DIDECYLTIN OXIDE/CN
L2 1 S E3
E NONYLTIN OXIDE/CN
E NONYL TIN OXIDE/CN

FILE 'CAPLUS, AGRICOLA' ENTERED AT 12:31:02 ON 29 MAR 2011
L3 0 S TRANSESTERIFICAITON (P) ESTERIFICATION (P) (FAT# OR OIL#)
L4 1 S BIODIESEL AND (L1 OR L2)

=> s simultaneous (L) (transesterification and esterification)
PROXIMITY OPERATION NOT ALLOWED
Certain operators may not be nested in combination with other operators. A nested operator is valid only when it occurs at the same level or above the operator outside the nested phrase as determined by

the following precedence list:

1. Numeric
2. (W), (NOTW), (A), (NOTA)
3. (S), (NOTS)
4. (P), (NOTP)
5. (L), (NOTL)
6. AND, NOT
7. OR

For example, '(MONOCLONAL(W)ANTIBOD?)(L)ANTIGEN?' is valid since (W) is above (L) on the precedence list. However, '((THIN(W)LAYER)(L)PHOSPHOLIPID#)(A)LACTONE#' is not valid since (L) is below (A) on the precedence list. The only exception is the 'OR' operator. This operator may be used in combination with any other operator. For example, '(ATOMIC OR NUCLEAR)(W)REACTOR' is valid.

```
=> s transesterification (L) esterification
L5        2413 TRANSESTERIFICATION (L) ESTERIFICATION

=> s l5 and (fat# or oil#) and (fatty (a) acid (a) alkyl (a) ester#)
L6          44 L5 AND (FAT# OR OIL#) AND (FATTY (A) ACID (A) ALKYL (A) ESTER#)


=> s l6 and (l1 or l2)
L7           1 L6 AND (L1 OR L2)

=> d l7 ibib abs

L7   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2011 ACS on STN
ACCESSION NUMBER:         2005:612439  CAPLUS
DOCUMENT NUMBER:          143:117808
TITLE:                    Improved process for preparing fatty
                          acid alkyl esters using as
                          biodiesel
INVENTOR(S):              Gupta, Ashok Kumar; Bhatnagar, Ajay Kumar; Kaul,
                          Savita
PATENT ASSIGNEE(S):       Council of Scientific and Industrial Research, India
SOURCE:                   PCT Int. Appl., 16 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     WO 2005063954         A1    20050714    WO 2003-IN416           20031230
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
             OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
             TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
             ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
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             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     CA 2552371           A1    20050714    CA 2003-2552371        20031230
     AU 2003290414        A1    20050721    AU 2003-290414         20031230
     AU 2003290414        B2    20101104
     EP 1711588           A1    20061018    EP 2003-782777         20031230
         R:  AT, DE, FR, GB, IT
     BR 2003018651        A     20061128    BR 2003-18651          20031230
     CN 1894390           A     20070110    CN 2003-80111007       20031230
     IN 2004DN00397       A     20060310    IN 2004-DN397          20040220
     IN 239072            A1    20100312
     US 20070282118       A1    20071206    US 2007-585041         20070612
PRIORITY APPLN. INFO.:                       WO 2003-IN416       W  20031230
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB   Fatty acid alkyl esters suitable
     for use as biodiesel are produced by a single step esterification
     of free fatty acids and transesterification of triglycerides
     from vegetable oils or animal fats or combinations
     thereof with a lower alc. (e.g. methanol) in presence of alkyl tin oxide
     as catalyst.  Thus, such an improved process comprises the steps of, a.
     reacting fatty acid glycerides with an alc. having 1-4 carbon atoms in the
     molar ratio of 3:1 to 30:1 of fatty acids and triglycerides resp., at a
     temperature ranging between 70-300°, pressure in the range of 1-30 bar,
     in presence of a organometalic catalytic compound of Tin with concentration of
     catalyst is in the range of 0.01 to 3 weight percent of the fatty acid
     glycerides; b. obtaining ester with glycerol; c. separating the glycerin from
     the fatty acid alkyl ester as
     immiscible phase by decantation; d. purifying the fatty
     acid alkyl esters by washing with water, and
     e. washed ester is treated with an basic adsorbent to obtain biodiesel.
OS.CITING REF COUNT:     4     THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD
                               (4 CITINGS)
REFERENCE COUNT:         7     THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> d his

     (FILE 'HOME' ENTERED AT 12:23:06 ON 29 MAR 2011)

     FILE 'REGISTRY' ENTERED AT 12:23:50 ON 29 MAR 2011
                E DIOCTYLTIN OXIDE/CN
L1            1 S E3
                E DIDECYLTIN OXIDE/CN
L2            1 S E3
                E NONYLTIN OXIDE/CN
                E NONYL TIN OXIDE/CN

     FILE 'CAPLUS, AGRICOLA' ENTERED AT 12:31:02 ON 29 MAR 2011
L3            0 S TRANSESTERIFICAITON (P) ESTERIFICATION (P) (FAT# OR OIL#)
L4            1 S BIODIESEL AND (L1 OR L2)
L5         2413 S TRANSESTERIFICATION (L) ESTERIFICATION
L6           44 S L5 AND (FAT# OR OIL#) AND (FATTY (A) ACID (A) ALKYL (A) ESTE
L7            1 S L6 AND (L1 OR L2)

=> s l6 and (alkyl (s) tin)
L8            2 L6 AND (ALKYL (S) TIN)
```

=> d l8 1-2 ibib abs

L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2011 ACS on STN
ACCESSION NUMBER: 2008:1431496 CAPLUS
DOCUMENT NUMBER: 150:7245
TITLE: Immobilized esterification catalysts for producing fatty acid alkyl esters
INVENTOR(S): Gao, Yong
PATENT ASSIGNEE(S): Southern Illinois University Carbondale, USA
SOURCE: U.S. Pat. Appl. Publ., 15pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080289248	A1	20081127	US 2007-752666	20070523
WO 2008070756	A2	20080612	WO 2007-US86573	20071206
WO 2008070756	A9	20080814		
WO 2008070756	A3	20081002		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
EP 2089347	A2	20090819	EP 2007-865264	20071206
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR				
US 20100130763	A1	20100527	US 2010-517315	20100126

PRIORITY APPLN. INFO.:			
US 2006-868755P	P	20061206	
US 2007-752666	A	20070523	
WO 2007-US86573	W	20071206	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB Provided herein are processes for the production of biodiesel. In particular, provided is an esterification process in which an alc. reacts with free fatty acids in a lipid material comprising free fatty acids and glycerides in the presence of an immobilized zirconium(IV) metal salt to form fatty acid alkyl esters.
Also provided is combination process in which an esterification reaction converts the free fatty acids in a lipid material to fatty acid alkyl esters and a transesterification reaction converts the glycerides in the material to fatty acid alkyl esters
.

L8 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2011 ACS on STN
ACCESSION NUMBER: 2005:612439 CAPLUS

DOCUMENT NUMBER: 143:117808
TITLE: Improved process for preparing fatty acid alkyl esters using as biodiesel
INVENTOR(S): Gupta, Ashok Kumar; Bhatnagar, Ajay Kumar; Kaul, Savita
PATENT ASSIGNEE(S): Council of Scientific and Industrial Research, India
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005063954	A1	20050714	WO 2003-IN416	20031230
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2552371	A1	20050714	CA 2003-2552371	20031230
AU 2003290414	A1	20050721	AU 2003-290414	20031230
AU 2003290414	B2	20101104		
EP 1711588	A1	20061018	EP 2003-782777	20031230
R: AT, DE, FR, GB, IT				
BR 2003018651	A	20061128	BR 2003-18651	20031230
CN 1894390	A	20070110	CN 2003-80111007	20031230
IN 2004DN00397	A	20060310	IN 2004-DN397	20040220
IN 239072	A1	20100312		
US 20070282118	A1	20071206	US 2007-585041	20070612
PRIORITY APPLN. INFO.:			WO 2003-IN416 W	20031230

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Fatty acid alkyl esters suitable for use as biodiesel are produced by a single step esterification of free fatty acids and transesterification of triglycerides from vegetable oils or animal fats or combinations thereof with a lower alc. (e.g. methanol) in presence of alkyl tin oxide as catalyst. Thus, such an improved process comprises the steps of, a. reacting fatty acid glycerides with an alc. having 1-4 carbon atoms in the molar ratio of 3:1 to 30:1 of fatty acids and triglycerides resp., at a temperature ranging between 70-300°, pressure in the range of 1-30 bar, in presence of a organometalic catalytic compound of Tin with concentration of catalyst is in the range of 0.01 to 3 weight percent of the fatty acid glycerides; b. obtaining ester with glycerol; c. separating the glycerin from the fatty acid alkyl ester as immiscible phase by decantation; d. purifying the fatty acid alkyl esters by washing with water, and e. washed ester is treated with an basic adsorbent to obtain biodiesel.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD

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                                  (4 CITINGS)
REFERENCE COUNT:          7       THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
                                  RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> d his

     (FILE 'HOME' ENTERED AT 12:23:06 ON 29 MAR 2011)

     FILE 'REGISTRY' ENTERED AT 12:23:50 ON 29 MAR 2011
                  E DIOCTYLTIN OXIDE/CN
L1              1 S E3
                  E DIDECYLTIN OXIDE/CN
L2              1 S E3
                  E NONYLTIN OXIDE/CN
                  E NONYL TIN OXIDE/CN

     FILE 'CAPLUS, AGRICOLA' ENTERED AT 12:31:02 ON 29 MAR 2011
L3              0 S TRANSESTERIFICAITON (P) ESTERIFICATION (P) (FAT# OR OIL#)
L4              1 S BIODIESEL AND (L1 OR L2)
L5           2413 S TRANSESTERIFICATION (L) ESTERIFICATION
L6             44 S L5 AND (FAT# OR OIL#) AND (FATTY (A) ACID (A) ALKYL (A) ESTE
L7              1 S L6 AND (L1 OR L2)
L8              2 S L6 AND (ALKYL (S) TIN)

=> log off
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:y
STN INTERNATIONAL LOGOFF AT 12:38:49 ON 29 MAR 2011
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